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## PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * *	* *	* *	* *	* Welcome to STN International * * * * * * * * *										
NEWS	1			Web Page for STN Seminar Schedule - N. America										
NEWS	2	DEC	01	ChemPort single article sales feature unavailable										
NEWS	3	FEB	02	Simultaneous left and right truncation (SLART) added										
				for CERAB, COMPUAB, ELCOM, and SOLIDSTATE										
NEWS	4	FEB	0.2	GENBANK enhanced with SET PLURALS and SET SPELLING										
NEWS		FEB		Patent sequence location (PSL) data added to USGENE										
NEWS		FEB		COMPENDEX reloaded and enhanced										
NEWS		FEB		WTEXTILES reloaded and enhanced										
NEWS		FEB		New patent-examiner citations in 300,000 CA/CAplus										
	, ,			patent records provide insights into related prior										
NEWS	9	FEB	19	Increase the precision of your patent queries use										
				terms from the IPC Thesaurus, Version 2009.01										
NEWS	10	FEB	23	Several formats for image display and print options										
				discontinued in USPATFULL and USPAT2										
NEWS	11	FEB	23	MEDLINE now offers more precise author group fields										
				and 2009 MeSH terms										
NEWS	12	FEB	2.3	TOXCENTER updates mirror those of MEDLINE - more										
				precise author group fields and 2009 MeSH terms										
NEWS	13	FEB	23	Three million new patent records blast AEROSPACE into										
				STN patent clusters										
NEWS	14	FEB	25	USGENE enhanced with patent family and legal status										
				display data from INPADOCDB										
NEWS	15	MAR	06	INPADOCDB and INPAFAMDB enhanced with new display										
				formats										
NEWS	16	MAR	11	EPFULL backfile enhanced with additional full-text										
				applications and grants										
NEWS	17	MAR	11	ESBIOBASE reloaded and enhanced										
NEWS	18	MAR	20	CAS databases on STN enhanced with new super role										
				for nanomaterial substances										
NEWS	19	MAR	23	CA/CAplus enhanced with more than 250,000 patent										
				equivalents from China										
NEWS	20	MAR	30	IMSPATENTS reloaded and enhanced										
NEWS	21	APR	03	CAS coverage of exemplified prophetic substances										
				enhanced										
NEWS		APR	07	STN is raising the limits on saved answers										
NEWS	23	APR	24	CA/CAplus now has more comprehensive patent assignee										
				information										
NEWS	24	APR	26	USPATFULL and USPAT2 enhanced with patent										
				assignment/reassignment information										
NEWS	25	APR	28	CAS patent authority coverage expanded										

NEWS 26 APR 28 ENCOMPLIT/ENCOMPLIT2 search fields enhanced NEWS 27 APR 28 Limits doubled for structure searching in CAS REGISTRY

NEWS 28 MAY 08 STN Express, Version 8.4, now available

NEWS 29 MAY 11 STN on the Web enhanced

NEWS 30 MAY 11 BEILSTEIN substance information now available on STN Easy

NEWS 31 MAY 14 DGENE, PCTGEN and USGENE enhanced with increased limits for exact sequence match searches and introduction of free HIT display format

NEWS 32 MAY 15 INPADOCDB and INPAFAMDB enhanced with Chinese legal status data

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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TOTAL

0.22

SESSION

FILE 'HOME' ENTERED AT 09:48:02 ON 24 MAY 2009

=> file reg COST IN U.S. DOLLARS

COST IN U.S. DOLLARS SINCE FILE
FULL ESTIMATED COST 0.22

FILE 'REGISTRY' ENTERED AT 09:48:20 ON 24 MAY 2009 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2009 American Chemical Society (ACS)

Property values tagged with IC are from the  ${\tt ZIC/VINITI}$  data file provided by  ${\tt InfoChem.}$ 

STRUCTURE FILE UPDATES: 22 MAY 2009 HIGHEST RN 1148179-26-3
DICTIONARY FILE UPDATES: 22 MAY 2009 HIGHEST RN 1148179-26-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

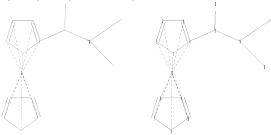
REGISTRY includes numerically searchable data for experimental and

predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>

Uploading C:\Program Files\Stnexp\Queries\10586204\Struc 1.str



chain nodes:
12 13 14 15 16
ring nodes:
12 23 4 5 6 7 8 9 10 11
chain bonds:
5-12 12-13 12-14 14-15 14-16
ring bonds:
1-2 1-5 1-11 2-3 2-11 3-4 3-11 4-5 4-11 5-11 6-7 6-10 6-11 7-8 7-11
exact/norm bonds:
1-2 1-5 1-11 2-3 2-11 3-4 3-11 4-5 4-11 5-11 6-7 6-10 6-11 7-8 7-11
exact/norm bonds:
1-2 1-5 1-11 2-3 2-11 3-4 3-11 4-5 4-11 5-11 6-7 6-10 6-11 7-8 7-11
exact bonds:
5-12 12-13

Match level: 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS

# L1 STRUCTURE UPLOADED

=> d L1 HAS NO ANSWERS L1 STR



Structure attributes must be viewed using STN Express query preparation.

173 TO

=> 11

SAMPLE SEARCH INITIATED 09:48:46 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 281 TO ITERATE

100.0% PROCESSED SEARCH TIME: 00.00.01

281 ITERATIONS

23 ANSWERS

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PROJECTED ANSWERS:

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*
PROJECTED ITERATIONS: 4615 TO 6625

L2 23 SEA SSS SAM L1

=> 11 full FULL SEARCH INITIATED 09:48:51 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 5422 TO ITERATE

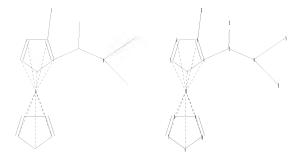
462 ANSWERS

100.0% PROCESSED 5422 ITERATIONS SEARCH TIME: 00.00.01

L3 462 SEA SSS FUL L1

\_-

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```
chain nodes:
12 13 14 15 16 17
ring nodes:
12 23 3 4 5 6 7 8 9 10 11
chain bonds:
4-17 5-12 12-13 12-14 14-15 14-16
ring bonde:
1-2 1-5 1-11 2-3 2-11 3-4 3-11 4-5 4-11 5-11 6-7 6-10 6-11 7-8 7-11
exact/norm bonds:
1-2 1-5 1-11 2-3 2-11 3-4 3-11 4-5 4-11 5-11 6-7 6-10 6-11 7-8 7-11
exact/norm bonds:
1-2 1-5 1-11 2-3 2-11 3-4 3-11 4-5 4-11 5-11 6-7 6-10 6-11 7-8 7-11
exact bonds:
4-17 5-12 12-13
```

Match level : 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS

#### L4 STRUCTURE UPLOADED

=> sam sub=13 ENTER LOGIC EXPRESSION, QUERY NAME, OR (END):end SEARCH ENDED BY USER

>> s 14 sam sss sub'l3 MISMATCHED QUOTE 'SUB'L3' Quotation marks (or apostrophes) must be used in pairs, one before and one after the expression you are setting off or masking. => s 14 sam sss sub=13

SAMPLE SUBSET SEARCH INITIATED 09:50:11 FILE 'REGISTRY'

SAMPLE SUBSET SCREEN SEARCH COMPLETED -17 TO ITERATE

100.0% PROCESSED 17 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET): PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET):

ONLINE \*\*COMPLETE\*\* 93 TO

PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET):

587 0 TO

1.5 0 SEA SUB=L3 SSS SAM L4

=> s 14 full sss sub=13

FULL SUBSET SEARCH INITIATED 09:50:19 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 376 TO ITERATE

100.0% PROCESSED 376 ITERATIONS SEARCH TIME: 00.00.01

1 ANSWERS

L6 1 SEA SUB=L3 SSS FUL L4

=> d scan

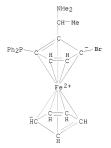
1 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN

Ferrocene, 1-bromo-2-[(1R)-1-(dimethylamino)ethyl]-3-(diphenylphosphino)-, IN

(1R) - (9CI)

C26 H27 Br Fe N P MF

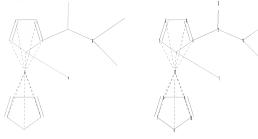
CI CCS



ALL ANSWERS HAVE BEEN SCANNED

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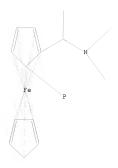


```
chain nodes:
1 2 13 14 15 16 17
ring nodes:
1 2 3 4 5 6 7 8 9 10 11
chain bonds:
1-17 5-12 12-13 12-14 14-15 14-16
ring bonds:
1-2 1-5 1-11 2-3 2-11 3-4 3-11 4-5 4-11 5-11 6-7 6-10 6-11 7-8 7-11
exact/norm bonds:
1-2 1-5 1-11 2-3 2-11 3-4 3-11 4-5 4-11 5-11 6-7 6-10 6-11 7-8 7-11
exact/norm bonds:
1-2 1-5 1-11 2-3 2-11 3-4 3-11 4-5 4-11 5-11 6-7 6-10 6-11 7-8 7-11
exact bonds:
1-17 5-12 12-13
```

Match level: 1:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS

### L7 STRUCTURE UPLOADED

=> d L7 HAS NO ANSWERS L7 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 17 sam sss sub=13
SAMPLE SUBSET SEARCH INITIATED 09:53:49 FILE 'REGISTRY'
SAMPLE SUBSET SCREEN SEARCH COMPLETED - 17 TO ITERATE

100.0% PROCESSED 17 ITERATIONS 11 ANSWERS SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE \*\*COMPLETE\*\*
PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET): 93 TO 587
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET): 22 TO 418

L8 11 SEA SUB=L3 SSS SAM L7

=> s 17 full sss sub=13 FULL SUBSET SEARCH INITIATED 09:53:55 FILE 'REGISTRY' FULL SUBSET SCREEN SEARCH COMPLETED - 376 TO ITERATE

100.0% PROCESSED 376 ITERATIONS 293 ANSWERS

SEARCH TIME: 00.00.01

L9 293 SEA SUB=L3 SSS FUL L7

=> file caplus

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY ENTRY 278.42 278.42 278.42

FILE 'CAPLUS' ENTERED AT 09:54:04 ON 24 MAY 2009
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CAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate

=> 19 and 13

134 L9

227 L3

134 L9 AND L3 1.10

=> 110 and lithiat?

CORPORATE SOURCE:

23096 LITHIAT? 14 L10 AND LITHIAT?

=> d ibib abs hitstr 1-14

L11 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1069637 CAPLUS

DOCUMENT NUMBER: 149:307455

TITLE:

Imidazolium-tagged ferrocene ligands AUTHOR(S): Sebesta, Radovan; Meciarova, Maria; Polackova, Viera;

Veverkova, Eva; Kmentova, Iveta; Gajdosikova, Eva;

Cvengros, Jan; Buffa, Radovan; Gajda, Vladimir

Department of Organic Chemistry, Faculty of Natural

Sciences, Comenius University, Bratislava, 842 15,

Slovakia

Collection of Czechoslovak Chemical Communications

(2007), 72(8), 1057-1068 CODEN: CCCCAK; ISSN: 0010-0765

PUBLISHER: Institute of Organic Chemistry and Biochemistry,

Academy of Sciences of the Czech Republic

DOCUMENT TYPE: Journal

LANGUAGE: English AB New chiral imidazolium-tagged ferrocene ligands were prepared

Diastereoselective ortho-lithiation of the Ugi amine was employed in the synthesis of planar chiral P/P, P/N and Se/N ligands. These compds. were attached through six-carbon spacers to an imidazolium moiety. Pd-complexes of these ligands were successfully used as catalysts for asym. allylic substitution in ionic ligs.

IT 1050440-00-0P 1050440-03-3P 1050440-07-7P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
USES (Uses)

(preparation of imidazolium-tagged ferrocene ligands as catalysts for asym. allylic substitution in ionic liqs.)

RN 1050440-00-0 CAPLUS CN Ferrocene, 1-(diphenylphe

Ferrocene, 1-(diphenylphosphino)-2-[(1R)-1-[methyl[6-(1-methyl-1H-imidazolium-3-yl)-1-oxohexyl]amino]ethyl]-, bromide (1:1), (1R)- (CA INDEX NAME)

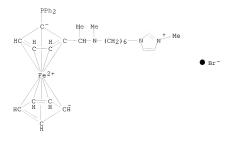
PAGE 1-A

PAGE 2-A

● Br-

RN 1050440-03-3 CAPLUS

CN Ferrocene, 1-(diphenylphosphino)-2-[(1R)-1-[methyl[6-(1-methyl-1Himidazolium-3-yl)hexyl]amino]ethyl]-, bromide (1:1), (1R)- (CA INDEX
NAME)



RN 1050440-07-7 CAPLUS
CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[(1R)-1-[methyl[6-(1-methyl-1H-imidazolium-3-yl)-1-oxohexyl]amino]ethyl]-, bromide (1:1), (1R)- (CA INDEX NAME)

PAGE 2-A

PAGE 1-A

• Br-

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:345587 CAPLUS

DOCUMENT NUMBER: 147:10043

TITLE: Aminoalkylferrocenyldichlorophosphanes: facile

synthesis of versatile chiral starting materials
AUTHOR(S): Tschirschwitz, Steffen; Loennecke, Peter; Hev-Hawkins,

Evamarie

CORPORATE SOURCE: Institut fuer Anorganische Chemie der Universitaet

Leipzig, Leipzig, Germany

SOURCE: Dalton Transactions (2007), (14), 1377-1382

CODEN: DTARAF; ISSN: 1477-9226

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 147:10043

AB Racemic and optically pure aminoalkylferrocenyldichlorophosphines were

prepared by reaction of PC13 with the corresponding lithiated aminoalkylferrocene precursors. Crystal structures of racemic 1-dichlorophosphino-2-N. N-dimethylaminomethylferrocene, racemic

1-dichlorophosphino-2-N, N-dimethylaminomethyl-3-triphenylsilylferrocene

and (S)-N,N-dimethyl-1-[(R)-2-(dichlorophosphino)ferrocenyl]ethylamine

reveal short intramol. N···P distances, which are

suggestive of weak  $N\!\!\to\!\!P$  dative bonds. The

aminoalkylferrocenyldichlorophosphines can be used for the preparation of the corresponding primary phosphines, one of which was characterized by x-ray crystallog. Optically pure  $(R)-N,N-dimethyl-1-\{(S)-2-n\}$ 

(phosphino)ferrocenyl]ethylamine can easily be lithiated twice

to give the 1st enantiomerically pure Li-P closo cluster compound, which

formed dark violet octahedral crystals.

[{Li2(THF)0.5-1-P-2-CH(Me)NMe2CSH3}FeCp]6 crystallizes in the chiral space group P2,2,2, [Flack parameter x=-0.02(1)] and reveals a hexameric

structure of like-configurated ferrocenylphosphinediide units associated through P-Li contacts to a central Li12P6 cluster.

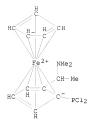
937168-76-8P

RE: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(crystal structure; preparation and structures of racemic and optically pure
aminoalkylferrocenyldichlorophosphines, primary
aminoalkylferrocenylohosphines and hexameric chiral dilithium

ferrocenvlphosphinediide closo cluster)

RN 937168-76-8 CAPLUS

CN Ferrocene, 1-(dichlorophosphino)-2-[(1S)-1-(dimethylamino)ethyl]-, (1S)-(CA INDEX NAME)



937168-87-1P

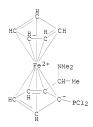
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and structures of racemic and optically pure aminoalkylferrocenyldichlorophosphines, primary aminoalkylferrocenylphosphines and hexameric chiral dilithium

ferrocenylphosphinediide closo cluster)

RN 937168-87-1 CAPLUS CN

Ferrocene, 1-(dichlorophosphino)-2-[(1R)-1-(dimethylamino)ethyl]-, (1R)-(CA INDEX NAME)



REFERENCE COUNT:

THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

35 L11 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN 2006:1147707 CAPLUS

ACCESSION NUMBER: 145:471698

DOCUMENT NUMBER: TITLE:

Multiple substituted ferrocenes containing at least three substituents and ligating heteroatom groups in the same cyclopentadienyl ring and process for

preparation thereof

INVENTOR(S): Pugin, Benoit; Feng, Xiangdong

PATENT ASSIGNEE(S): Solvias A.-G., Switz. SOURCE: PCT Int. Appl., 43pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE WO 2006114438 A2 20061102 WO 2006-EP61861 20060427 WO 2006114438 A3 20070118 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN. YU. ZA. ZM. ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, KG, KZ, MD, RU, TJ, TM CA 2006-2605434 CA 2605434 A1 20061102 20060427 EP 1874786 A2 20080109 EP 2006-754872 20060427 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR JP 2008539202 T 20081113 JP 2008-508222 IN 2007DN09026 Α 20080104 IN 2007-DN9026 20071123 CN 101213202 A 20080702 CN 2006-80023635 20071228 PRIORITY APPLN. INFO.: CH 2005-748 A 20050428 WO 2006-EP61861 W 20060427 OTHER SOURCE(S): CASREACT 145:471698; MARPAT 145:471698 Ferrocenes  $[(\eta 5-1-R2-2-X-3-Y-4-R1-C5H)Fe(\eta 5-C5H5-nR3n)]$  (1, n = 0-5, R3 = alkvl, Ph, preferably n = 0; R1 = H, C1-20 organyl, diorganylphosphino, P-heterocyclyl, alkylthio, silyl; R2 = halo, alkyl, carboxy, formyl, hydroxyalkyl, aminomethyl, silyl, phosphino, phosphono, SH; Y = directing optionally chiral group, preferably 1-dialkylaminoethyl, 2-oxazolinyl, pyrrolidinylmethyl, 1,3-dioxolanyl), useful as ligands for transition metal-catalyzed coupling reactions and as intermediates in

on, i - dietering optionary chiral giorp, peterbary relativishing the property of transition metal-catalyzed coupling reactions and as intermediates in preparation of bidentate ligands (no data), were prepared by a process comprising lithiation of substituted ferrocenes by alkyllithium or Grignard reagents followed by halogenation or reaction with electrophilic organic

compds.; further substitution in haloferrocenes are performed by regioselective lithiation of the cyclopentadienyl ligand in ortho-position to the halogen by lithium secondary amides followed by alkylation, hydrolysis, silylation or phosphination. In an example, (2S)-2-bromo-1-[(IR)-1-(dimethylaminoethyl)]-3-methylferrocene was prepared by regioselective lithiation of

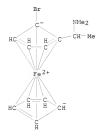
 $(18)^{-1}$ -bromo- $2-[(1R)^{-1}$ -(dimethylaminoethyl)] Ferrocene with lithium 2,2,6,6,-tetramethylpiperidide followed by reaction with MeI; the product was converted to  $(2R)^{-1}$ -[(1R)-1-(dimethylaminoethyl)]-2-

(diphenylphosphino)-3-methylferrocene by reaction with BuLi and Ph2PC1.

- IT 205746-95-8
- RL: RCT (Reactant); RACT (Reactant or reagent)

(process for preparation of planar-chiral one-ring tri- and tetrasubstituted ferrocene compds. and ligands by directed lithiation of haloferrocenes with subsequent substitution)

- RN 205746-95-8 CAPLUS
- CN Ferrocene, 1-bromo-2-[(1R)-1-(dimethylamino)ethyl]-, (1S)- (CA INDEX NAME)

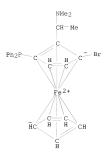


IT 913621-01-9P 913621-03-1P

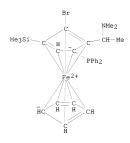
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(process for preparation of planar-chiral one-ring tri- and tetrasubstituted ferrocene compds. and ligands by directed lithlation of haloferrocenes with subsequent substitution)

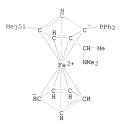
- RN 913621-01-9 CAPLUS
- CN Ferrocene, 1-bromo-2-[(1R)-1-(dimethylamino)ethyl]-3-(diphenylphosphino)-, (1R)- (9CI) (CA INDEX NAME)



- RN 913621-03-1 CAPLUS
- CN Ferrocene, 3-bromo-2-[(1R)-1-(dimethylamino)ethyl]-1-(diphenylphosphino)-4-(trimethylsilyl)-, (1R)- (9CI) (CA INDEX NAME)

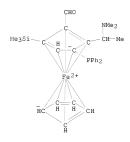


- IT 913621-04-2P 913621-05-3P
  - RL: SPN (Synthetic preparation); PREP (Preparation) (process for preparation of planar-chiral one-ring tri- and tetrasubstituted ferrocene compds. and ligands by directed lithiation of haloferrocenes with subsequent substitution)
- RN 913621-04-2 CAPLUS
- CN Ferrocene, 2-[(1R)-1-(dimethylamino)ethyl]-1-(diphenylphosphino)-4-(trimethylsilyl)-, (1R)- (9CI) (CA INDEX NAME)



RN 913621-05-3 CAPLUS

CN Ferrocene, 2-[(1R)-1-(dimethylamino)ethyl]-1-(diphenylphosphino)-3-formyl-4-(trimethylsilyl)-, (1R)- (9CI) (CA INDEX NAME)



L11 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:673306 CAPLUS

DOCUMENT NUMBER: 143:153519

TITLE: Metallocene-based chiral phosphine or arsine ligands

INVENTOR(S): Chen, Wei-Ping; Whittall, John PATENT ASSIGNEE(S): Stylacats Limited, UK

SOURCE: PCT Int. Appl., 114 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2 PATENT INFORMATION:

PA'	TENT	NO.		KIN	D	DATE		APPLICATION NO.						DATE						
WO	WO 2005068477					A1		20050728		WO 2005-GB112					20050114					
	W:	AE,	AG,	AL,	AM,	AT.	AU,	AZ.	BA,	BB	, BG	, BR,	BW,	BY,	BZ,	CA,	CH,			
												EE,								
												KE,								
												MN,								
												, SD,								
												VC.								
	RW:	BW.	GH.	GM.	KE.	LS.	MW.	MZ.	NA.	SD	, SL	. SZ.	TZ.	UG.	ZM.	ZW.	AM,			
		AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM,	AT	, BE	, BG,	CH,	CY,	CZ,	DE,	DK,			
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IS	, IT	LT,	LU,	MC,	NL,	PL,	PT,			
		RO,	SE,	SI,	SK,	TR,	BF,	BJ,	CF,	CG	, CI	CM,	GA,	GN,	GQ,	GW,	ML,			
		MR,	NE,	SN,	TD,	TG														
AU	AU 2005205224						2005	0728	AU 2005-205224					20050114						
AU	AU 2005205224					B2 20090423														
CA	CA 2553607					A1 20050728				CA 2005-2553607					20050114					
GB	GB 2410950				A 20050817				GB 2005-701					20050114						
GB	GB 2410950					B 20090520				AU 2005-205224 CA 2005-2553607 GB 2005-701 GB 2005-704										
GB	GB 2410951				A 20050817				GB 2005-704					20050114						
EP	EP 1/09004				WI 50001011				EP 2005-701880					20050114						
EP					B1 20090304															
	R:											, LI,								
						FΙ,	RO,	MK,	CY,	AL	, TR	, BG,	CZ,	EE,	HU,	PL,	SK,			
CN	BA, HR, IS, CN 1914217						2007	0214		CM	2005	-8000	3721		2	0050	114			
.TP	TD 2007517949					T 20070705				CN 2005-80003721 JP 2006-548397										
AT	AT 404573					T 20080815				AT 2005-701893					20050111					
ES	ES 2313282					T3 20090301				EC 200E 701002					20050114					
AT	CN 1914217 JP 2007517849 AT 404573 ES 2313282 AT 424404					T 20090315				AT 2005-701880 IN 2006-MN835 US 2006-586287 GB 2004-720					20050111					
TN	IN 2006MN00835						2007	0413		TN	2006	-MNR3	5		2	0060	714			
US	US 20070161762						2007	0712		US	2006	-5862	87		2	0060	929			
PRIORITY APPLN. INFO.:										GB	2004	-720			A 2	0040	114			
										WO	2005	-GB11	2		w 2	0050	114			
OTHER S	OTHER SOURCE(S):					CASREACT 143:153519; MARPAT 143:153519														
GI																				

AB The present invention relates to metallocene-based phosphine ligands, I-III (W = P, As; M = metal, specially Fe; R1, R2 = independent from each other (un) substituted, branched, straight chain alkyl, alkoxy, alkylamino, (un) substituted cycloalkyl, cycloalkoxy, cycloalkylamino, carbocyclic aryl, etc.; R3, R4 = same or different (un)substituted, branched, straight chain alkyl, (un) substituted cycloalkyl, carbocyclic aryl, etc.; n = 0-3; m = 0-5; Q = organophosphino, organoarsino, etc.; G = carbonyl and amino substituted linker, etc.), having chirality at phosphorus and at least one other element of chirality (planar chirality and/or chirality at carbon); and to the use of such ligands in asym. transformation reactions to generate high enantiomeric excesses of formed compds. Thus, preparation of (RC, SFe, SP)-2-[1-[(N-methyl-N-diphenylphosphino)amino]ethyl]-1-[(2methoxyphenyl)phenylphosphino[ferrocene is described and used as cocatalyst for [Rh(COD)2][OTf] catalyzed enantioselective hydrogenation of Me 2-acetamidoacrylate. A method for the preparation of ligands according to the invention involving the conversion of the ortho-lithiated substituted metallocene to a phosphine chiral at phosphorus is also disclosed.

IT 859839-62-6P 859839-68-2P

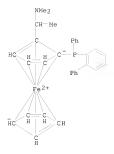
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of metallocene-based chiral phosphine or arsine ligands as catalysts for asym. transformation)

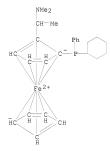
RN 859839-62-6 CAPLUS

Ferrocene, 1-[(S)-[1,1'-biphenyl]-2-ylphenylphosphino]-2-[(1R)-1-(dimethylamino)ethyl]-, stereoisomer (9CI) (CA INDEX NAME)

CN



RN 859839-68-2 CAPLUS
CN Ferrocene, 1-[(R)-cyclohexylphenylphosphino]-2-[(1R)-1(dimethylamino)ethyl]-, (1R)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:385604 CAPLUS

ACCESSION NUMBER: 2003:385604 DOCUMENT NUMBER: 139:84992

Fluorescence Resonance Energy Transfer (FRET) as a High-Throughput Assay for Coupling Reactions.

TITLE:

Arylation of Amines as a Case Study
AUTHOR(S): Stauffer, Shaun R.; Hartwig, John F

AUTHOR(S): Stauffer, Shaun R.; Hartwig, John F.
CORPORATE SOURCE: Department of Chemistry, Yale University, N

ORPORATE SOURCE: Department of Chemistry, Yale University, New Haven, CT, 06520-8107, USA

SOURCE: Journal of the American Chemical Society (2003),

125(23), 6977-6985

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:84992

A solution-phase assay based on fluorescence resonance energy transfer (FRET) was developed for high-throughput screening of palladium catalyzed aminations of aryl halides. Dansylpiperazine was used as the fluorescent component and a chloro- or bromoarene tagged with an azo dye as the quenching partner. Fluorescence intensities of reaction aliquots correlated linearly with reaction yield after dilution to appropriate concns. A library of 119 phosphine and heterocyclic carbene ligands was evaluated in duplicate reactions of two combinations. In general, the FRET assay displayed excellent reproducibility, with less than 5% of the duplicate expts. showing significant variability in yields. Among reactions producing greater than 50% yield, the average percent uncertainty was just 5%. For a small subset of sterically hindered ligands, differences in yields between 10 and 20% were observed between the substrates bearing dyes for the FRET assay and substrates that are unfunctionalized. However, the remaining catalyst combinations gave yields similar to those expected from literature precedent. In addition to an evaluation of the accuracy of the FRET assay, this work includes the use of the FRET assay to investigate relative activities of various catalysts for the amination of aryl bromides and chlorides and to find conditions for aminations in more polar solvents. Reactions with K3PO4 base in aqueous mixts. of polar and nonpolar organic solvents were shown to be appropriate for the amination chemical

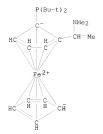
RL: CAT (Catalyst use); USES (Uses)

(ligand, provided coupling yield >50; fluorescence resonance energy transfer as high-throughput ligand assay for palladium-catalyzed amination of azo-dye-tagged haloarene quencher with dansylpiperazine fluorobhore)

N 295782-51-3 CAPLUS

295782-51-3

CN Ferrocene, 1-[bis(1,1-dimethylethyl)phosphino]-2-[1-(dimethylamino)ethyl]-(CA INDEX NAME)



REFERENCE COUNT:

66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN 2001:862902 CAPLUS

ACCESSION NUMBER:

136:183912

DOCUMENT NUMBER: TITLE:

CORPORATE SOURCE:

SOURCE:

Structural aspects of palladium and platinum complexes

with chiral diphosphinoferrocenes relevant to the regio- and stereoselective copolymerization of CO with

propene AUTHOR(S):

Gambs, Celine; Consiglio, Giambattista; Togni, Antonio Department of Chemistry, Swiss Federal Institute of

Technology, Zurich, CH-8093, Switz. Helvetica Chimica Acta (2001), 84(10), 3105-3126

CODEN: HCACAV; ISSN: 0018-019X

PUBLISHER: Verlag Helvetica Chimica Acta

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:183912

A series of chiral diphosphinoferrocene ligands, derived from josiphos (= (2R)-1-[(1R)-1-(dicyclohexylphosphino)ethyl]-2-

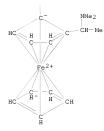
(diphenylphosphino) ferrocene, formerly called {(R)-1-[(S)-2-(diphenylphosphino)ferrocenyl]ethyl}dicycloxexylphosphine) where the electronic properties of the ligand are systematically varied, were prepared X-Ray studies of five of these new ligands confirmed that these compds. display very similar conformations in the solid state and that no structural criteria could be found indicating the modified electronic properties. These ligands find application in the Pd-catalyzed highly regio- and stereoselective CO/propene copolymn. reaction, where the electronic properties of the ligand show a great impact on the catalyst activity. Coordination-chemical aspects of these diphosphinoferrocenes relevant to the CO/propene copolymn. reaction were addressed by the preparation and characterization of Pd- and Pt-complexes of the general formula [PdC12(P-P)], [PdMe2(P-P)], [PdC1Me(P-P)], [PdMe(MeCN)(P-P)]PF6, and [PtClMe(P-P)] (P-P = chiral diphosphinoferrocene ligand), four of which were characterized by x-ray crystallog.

- IT 136825-02-0P 136825-03-1P 136825-05-3P 166172-70-9P 166172-71-0P 399022-86-7P 399022-93-6P 399022-95-8P 399040-57-4P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and phosphination with dicyclohexylphosphine)
- (preparation and phosphination with dicyclohexylphosphine)
- RN 136825-02-0 CAPLUS
- CN Ferrocene, 1-[bis[4-(trifluoromethyl)phenyl]phosphino]-2-[(1R)-1-(dimethylamino)ethyl]-, (1R)- (CA INDEX NAME)

- RN 136825-03-1 CAPLUS
- CN Ferrocene, 1-[bis[3-(trifluoromethyl)phenyl]phosphino]-2-[(1R)-1 (dimethylamino)ethyl]-, (1R)- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A



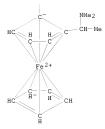
RN CN

136825-05-3 CAPLUS
Ferrocene, 1-[bis(4-methoxyphenyl)phosphino]-2-[(1R)-1-(dimethylamino)ethyl]-, (1R)- (9CI) (CA INDEX NAME)





PAGE 2-A

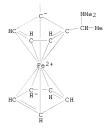


RN CN

 $\begin{tabular}{ll} 166172-70-9 & CAPLUS \\ Ferrocene, & |-|| bis [3,5-bis (trifluoromethyl)phenyl]phosphino]-2-[(1R)-1-(dimethylamino)ethyl]-, & (1R)-(9CI) & (CA INDEX NAME) \\ \end{tabular}$ 

PAGE 1-A

PAGE 2-A

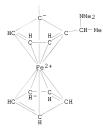


RN CN

166172-71-0 CAPLUS Ferrocene, 1-[bis(3,5-dimethylphenyl)phosphino]-2-[(1R)-1-(dimethylamino)ethyl]-, (1R)- (9CI) (CA INDEX NAME)

PAGE 1-A

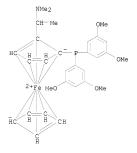
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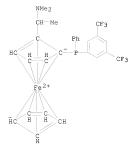
RN CN

399022-86-7 CAPLUS Ferrocene, 1-[bis[2-(trifluoromethyl)phenyl]phosphino]-2-[(1R)-1-(dimethylamino)ethyl]-, (1R)- (9CI) (CA INDEX NAME)

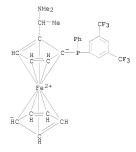
RN 399022-93-6 CAPLUS Ferrocene, 1-[bis(3,5-dimethoxyphenyl)phosphino]-2-[(1R)-1-(dimethylamino)ethyl]-, (1R)- (9CI) (CA INDEX NAME)



RN 399022-95-8 CAPLUS
CN Ferrocene, 1-[(R)-[3,5-bis(trifluoromethyl)phenyl]phenylphosphino]-2-[(IR)-1-(dimethylamino)ethyl]-, (IR)- (SCI) (CA INDEX NAME)



RN 399040-57-4 CAPLUS
CN Ferrocene, 1-[(S)-[3,5-bis(trifluoromethyl)phenyl]phenylphosphino]-2-[(1R)-1-(dimethylamino)ethyl]-, (1R)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1993:191947 CAPLUS COPYRIGHT 2009 ACS ON STN 1993:191947 CAPLUS COPYRIGHAL REFERENCE NO.: 118:32985a, 32988a

TITLE: Functionalized organometallic ligand. 1. Synthesis

of some ferrocene derivatives of cyclohexyl- and

cvclopentadienvlphosphines

AUTHOR(S): Kim, Tae Jeong; Kim, Yong Hoon; Kim, Hong Seok; Shim,

Sang Chul; Kwak, Young Woo; Cha, Jin Soon; Lee, Hyung Soo; Uhm, Jae Kook; Byun, Sang In

CORPORATE SOURCE: Dep. Ind. Chem., Kyungpook Natl. Univ., Taegu, 702-701, S. Korea

SOURCE: Bulletin of the Korean Chemical Society (1992), 13(6),

588-92

CODEN: BKCSDE; ISSN: 0253-2964
DOCUMENT TYPE: Journal

LANGUAGE: English

AB A series of new ferrocene derivs. containing cyclohexylphosphines have been prepared from the reactions of lithioferrocenes with corresponding

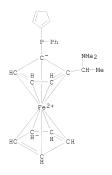
chlorodicyclohexylphosphines. 1-Diphenylphosphino-1'dicyclohexylphosphinoferrocene has been prepared from [1]-ferrocenophane via
a ring cleavage reaction. Chiral ferrocenylaminophosphines incorporating
cyclohexyl- and cyclopentadienylphosphines have also been prepared from the
chiral template 2-N, N-dimethylaminoethylferrocene (FA) via stereoselective
lithiation followed by phosphination with corresponding RZPC1(R =
C6H11, C5H5). The synthesis of cyclopentadienylphosphine derivative of (R)-FA
led to the formation of a mixture of four diastereomers due to the presence
of three chiral sources in the final product in addition to the fluxional
behavior of the n1-C5H5 group attached to the phosphorus. All these

new compds. have been characterized by anal. and spectroscopic techniques. IT 146960-89-6P 146960-92-IP 147020-73-3P

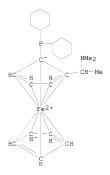
147059-50-5P 147059-51-6P 147126-23-6P RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of) RN 146960-89-6 CAPLUS

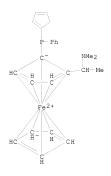
CN Ferrocene, 1-(1,4-cyclopentadien-1-ylphenylphosphino)-2-[1-(dimethylamino)ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



RN 146960-92-1 CAPLUS CN Ferrocene, 1-(dicyclohexylphosphin

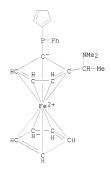


RN 147020-73-3 CAPLUS CN Ferrocene, 1-(1,3-cyclopentadien-1-ylphenylphosphino)-2-[1-(dimethylamino)ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



RN 147059-50-5 CAPLUS

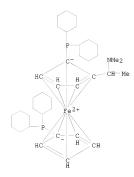
CN Ferrocene, 1-(1,4-cyclopentadien-1-ylphenylphosphino)-2-[1-(dimethylamino)ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



RN 147059-51-6 CAPLUS

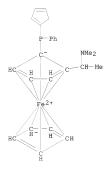
 $\texttt{CN} \quad \texttt{Ferrocene, 1,1'-bis(dicyclohexylphosphino)-2-[(1R)-1-(dimethylamino)ethyl]-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamino)ethyll-1-(dimethylamin$ 

## , (2R)- (9CI) (CA INDEX NAME)



RN CN

 $147126-23-6 \quad \texttt{CAPLUS} \\ \texttt{Ferrocene, 1-(1,3-cyclopentadien-1-ylphenylphosphino)-2-[1-1]} \\ \texttt{CAPLUS} \\ \texttt{CAPLU$ (dimethylamino)ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



L11 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1992:41678 CAPLUS

DOCUMENT NUMBER: 116:41678

ORIGINAL REFERENCE NO.: 116:7161a,7164a

TITLE: Chiral cooperativity: the effect of distant chiral

centers in ferrocenylamine ligands upon

enantioselectivity in the gold(I)-catalyzed aldol
reaction

AUTHOR(S): Pastor, Stephen D.; Togni, Antonio

CORPORATE SOURCE: Cent. Res. Lab., Ciba-Geigy A.-G., Basel, CH-4002,

Switz.

SOURCE: Helvetica Chimica Acta (1991), 74(5), 905-33

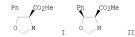
CODEN: HCACAV; ISSN: 0018-019X

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 116:41678

GI CASREACI



ΔR Long-range chiral cooperativity in enantiomerically pure ferrocenylamine ligands containing both planar and multiple centers of chirality (multiple stereogenic C-atoms) was demonstrated in the Au(I)-catalyzed reaction of aldehydes and isocyano esters. Synthetic methodol, was developed for the synthesis of ferrocenylamine ligands with two and three chiral centers of known absolute configuration in the C-side chain in addition to the planar chirality of the mol. The diastereo- and enantioselectivity of the Au(I)-catalyzed preparation of the trans- and cis-dihydrooxazoles I and II, resp., from benzaldehyde and Me isocyanoacetate depend upon the sequence of chirality (absolute configuration of the chiral centers) in the side chain of the ferrocenylamine ligands. Particularly significant effects were observed upon the enantioselectivity for the minor cis-dihydrooxazole II, for which, in certain cases, resulted in a change in the enantiomeric dihydrooxazole II produced in excess with a change in the absolute configuration of a distant chiral center. Significant effects upon diastereo- and enantioselectivity were observed when chiral ferrocenylamine ligands containing free OH groups were utilized. Using ligands containing a

free

OH group gave II with an absolute configuration opposite to that produced by the corresponding ester and carbamate derivs. The possible mechanisms for the transmission of chiral information in the proposed stereoselective transition state were discussed, including both the formation of a stereogenic N-atom and steric effects based upon Newman's rule of six.

IT 136723-46-1P 136735-16-5P 136780-05-7P 136780-06-8P 136780-07-9P

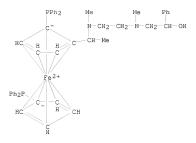
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and addition reaction of, with isocyanates)

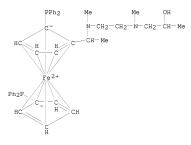
RN 136723-46-1 CAPLUS

CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[[2-[(2-hydroxy-2-

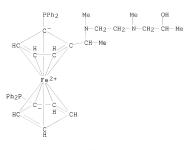
phenylethyl)methylamino]ethyl]methylamino]ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



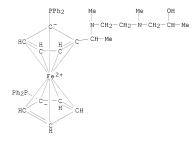
- RN 136735-16-5 CAPLUS
- CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[[2-[(2hydroxypropyl)methylamino]ethyl]methylamino]ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



- RN 136780-05-7 CAPLUS
- CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[[2-[(2-hydroxypropyl)methylamino]ethyl]methylamino]ethyl]methylamino]ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



- RN 136780-06-8 CAPLUS
- CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[[2-{(2hydroxypropyl)methylamino]ethyl]methylamino]ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



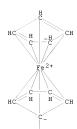
- RN 136780-07-9 CAPLUS
- CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[[2-[(2-hydroxy-2-phenylethyl)methylamino]ethyl]methylamino]ethyl]-, stereoisomer (9CI) (CA INDEX NAME)

136637-98-4 136637-99-5 136638-01-2

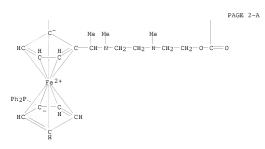
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     136735-26-7 136735-27-8 136735-28-9
     136779-98-1 136779-99-2 136780-01-3
     136780-02-4 136780-08-0 136780-09-1
     136781-53-8 138332-67-9
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        (preparation and gold-catalyzed aldol reaction of benzaldehyde with Et
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RN
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CN
     Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[[2-[[2-
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PAGE 1-A

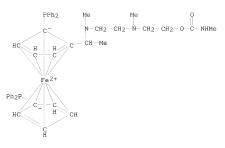


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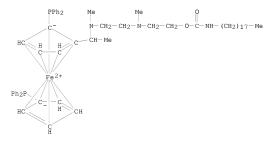
RN 136637-99-5 CAPLUS CN Ferrocene, 1,1'-bis

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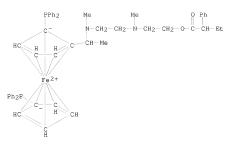
RN 136638-01-2 CAPLUS

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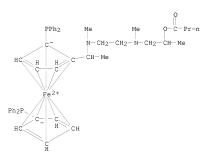
RN 136638-04-5 CAPLUS

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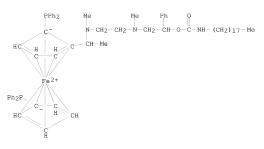
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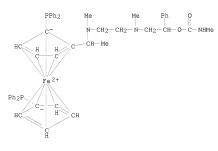
RN 136652-21-6 CAPLUS

CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-(1,2,5-trimethyl-9-oxo-7-phenyl-8-oxa-2,5,10-triazaoctacos-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



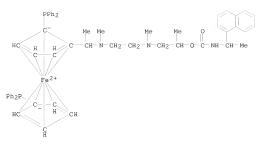
RN 136652-22-7 CAPLUS

CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-(1,2,5-trimethyl-9-oxo-7-phenyl-8-oxa-2,5,10-triazaundec-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



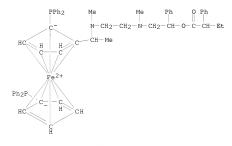
RN 136652-23-8 CAPLUS

CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1,2,5,7-tetramethyl-11-(1-naphthalenyl)-9-oxo-8-oxa-2,5,10-triazadodec-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)

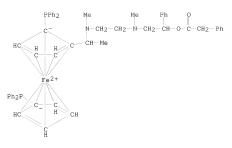


RN 136652-24-9 CAPLUS

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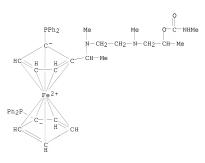


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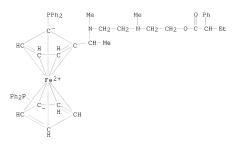
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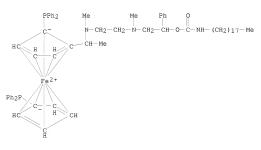
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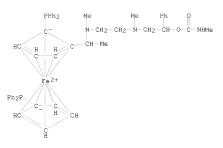
RN 136735-20-1 CAPLUS

CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-(1,2,5-trimethyl-9-oxo-7-phenyl-8-oxa-2,5,10-triazaoctacos-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



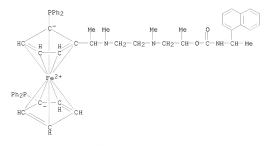
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CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-(1,2,5-trimethyl-9-oxo-7-phenyl-8-oxa-2,5,10-triazaundec-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



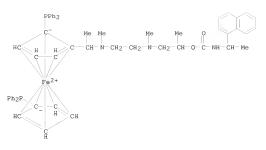
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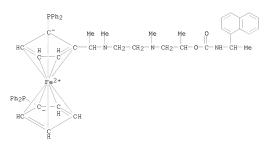
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CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1,2,5,7-tetramethyl-11-(1-naphthalenyl)-9-oxo-8-oxa-2,5,10-triazadodec-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



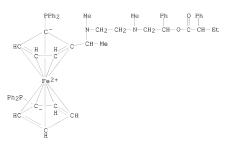
RN 136735-24-5 CAPLUS

CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1,2,5,7-tetramethyl-11-(1-naphthalenyl)-9-oxo-8-oxa-2,5,10-triazadodec-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



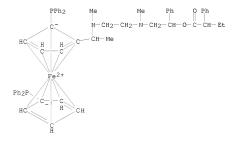
RN 136735-25-6 CAPLUS

CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[methyl[2-[methyl[2-(1-oxo-2-phenylbutxy)-2-phenylbutxy]-2-phenylethyl]amino]ethyl]amino]ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



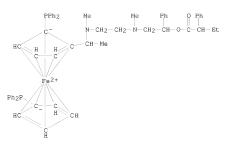
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CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[methyl[2-[methyl[2-(1-oxo-2-phenylbutoxy)-2-phenylethyl]amino]ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



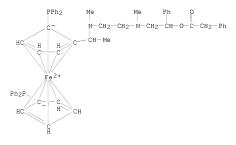
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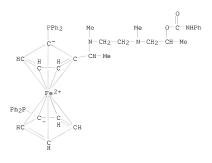
RN 136735-28-9 CAPLUS

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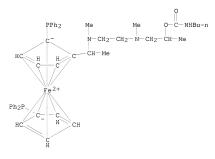


RN 136779-98-1 CAPLUS

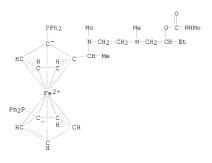
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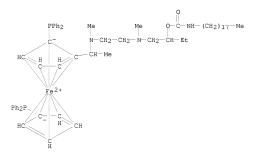
RN 136779-99-2 CAPLUS
CN Ferrocene 1,1'-bis(diphenylphosphino)-2-(1,2,5,7-tetramethyl-9-oxo-8-oxa-2,5,10-triazatetradec-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



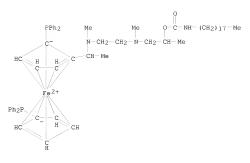
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CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-(7-ethyl-1,2,5-trimethyl-9-oxo-8-oxa-2,5,10-triazaundec-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



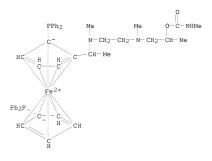
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CN Ferrocene 1,1'-bis(diphenylphosphino)-2-(7-ethyl-1,2,5-trimethyl-9-oxo-8-oxa-2,5,10-triazaoctacos-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



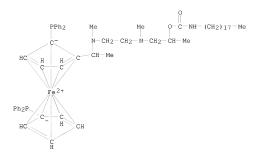
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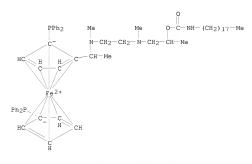
RN 136780-09-1 CAPLUS
CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-(1,2,5,7-tetramethyl-9-oxo-8-oxa2,5,10-triazaundec-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



RN 136781-53-8 CAPLUS
CN Ferrocene 1,1'-bis(diphenylphosphino)-2-(1,2,5,7-tetramethyl-9-oxo-8-oxa-2,5,10-triazaotacos-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)

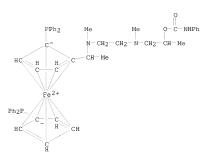


RN 138332-67-9 CAPLUS
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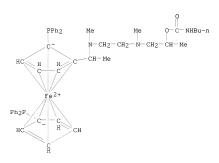


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  136735-19-8P 136735-72-3P
  RL: SPN (Synthetic preparation); PREP (Preparation)
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- RN 136652-18-1 CAPLUS
- CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[methyl[2-[methyl[2-

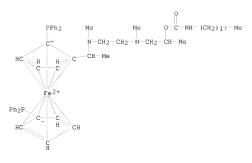
[[(phenylamino)carbony1]oxy]propy1]amino]ethy1]amino]ethy1]-, stereoisomer (9CI) (CA INDEX NAME)



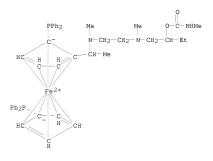
- RN 136652-19-2 CAPLUS
- CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-(1,2,5,7-tetramethyl-9-oxo-8-oxa-2,5,10-triazatetradec-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



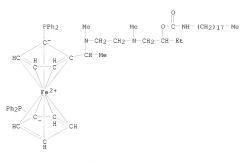
- RN 136652-20-5 CAPLUS
- CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-(1,2,5,7-tetramethyl-9-oxo-8-oxa-2,5,10-triazaoctacos-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



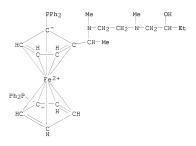
RN 136695-83-5 CAPLUS
CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-(7-ethyl-1,2,5-trimethyl-9-oxo-8-oxa-2,5,10-trizaundec-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



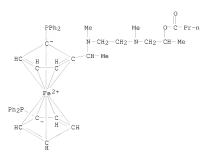
RN 136695-84-6 CAPLUS
CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-(7-ethyl-1,2,5-trimethyl-9-oxo-8-oxa-2,5,10-triazaoctacos-1-yl)-, stereoisomer (9CI) (CA INDEX NAME)



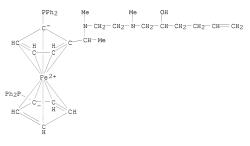
RN 136735-17-6 CAPLUS
CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[[2-[(2-hydroxybutyl)methylamino]ethyl]methylamino]ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



RN 136735-19-8 CAPLUS
CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[methyl[2-[methyl[2-(1oxobutoxy)propyl]amino]ethyl]amino]ethyl]-, stereoisomer (9CI) (CA INDEX NAME)

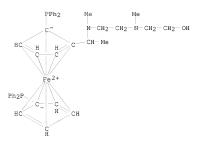


RN 136735-72-3 CAPLUS
CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[[2-[(2-hydroxy-5-hexenyl)methylamino]ethyl]methylamino]ethyl]-, stereoisomer (9CI) (CA INDEX NAME)

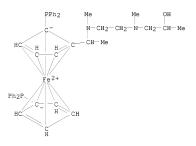


- IT 136637-96-2P 136638-05-6P 136638-06-7P 136638-07-8P
  - RL: SPN (Synthetic preparation); PREP (Preparation) (preparation, reaction with isocyanates, and gold-catalyzed aldol reaction of benzaldehyde with Me isocyanoacetate in presence of, stereochem. of)
- RN 136637-96-2 CAPLUS
- CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[[2-[(2-hydroxyethyl)methylamino]ethyl]methylamino]ethyl]-, [R-(R\*,R\*)]- (9CI)

## (CA INDEX NAME)

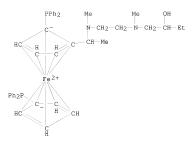


RN 136638-05-6 CAPLUS
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(CA INDEX NAME)



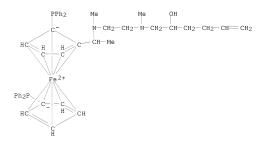
RN 136638-06-7 CAPLUS

CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[[2-[(2hydroxybutyl)methylamino]ethyl]methylamino]ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



RN 136638-07-8 CAPLUS

CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[[2-[(2-hydroxy-5hexenyl)methylamino]ethyl]methylamino]ethyl]-, stereoisomer (9CI) (CA INDEX NAME)



L11 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1990:459444 CAPLUS

113:59444

DOCUMENT NUMBER: ORIGINAL REFERENCE NO .:

113:10067a,10070a

TITLE:

Stereoselective synthesis, conformation and complexing

AUTHOR(S): CORPORATE SOURCE: behavior of 1,2,3-trisubstituted chiral ferrocenes Deus, Norbert; Huebener, Gerd; Herrmann, Rudolf Org.-Chem. Inst., Tech. Univ. Muenchen, Garching, D-8046, Germany

SOURCE: Journal of Organometallic Chemistry (1990), 384(1-2),

155-63

CODEN: JORCAI: ISSN: 0022-328X DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 113:59444

GΙ

SMe CHMeNMe2 PPh2

Sulfur and phosphorus substituents have been introduced into the 2 and 5 positions of the ferrocene nucleus in chiral

1-(dimethylamino)ethylferrocene by stereoselective lithiation and reaction with electrophiles. The conformations of the diastereoisomeric trisubstituted ferrocenes, e.g. (R,R)-I, have been determined by NMR methods. The compds. behave as bidentate or monodentate ligands for transition metals, leaving one or two coordination sites for a further metal. NMR expts. suggest different site selectivity in the formation of

nickel(II) and rhodium(I) complexes. ΙT 128299-56-9DP, rhodium complexes

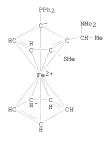
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RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and catalytic activity of, for asym. hydrogenation for

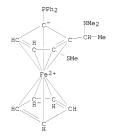
acetylaminocinnamic acid)

RN 128299-56-9 CAPLUS

CN Ferrocene, 2-[1-(dimethylamino)ethyl]-1-(diphenylphosphino)-3-(methylthio)-, [R-(R\*,R\*)]- (9CI) (CA INDEX NAME)



- IT 128137-34-8P 128137-35-9P RN: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and conformation of)
- RN 128137-34-8 CAPLUS
  CN Ferrocene, 2-[1-(dimethylamino)ethyl]-1-(diphenylphosphino)-3-(methylthio), [S-(\*\*,5\*)]- (9CI) (CA INDEX NAME)



- RN 128137-35-9 CAPLUS
- CN Ferrocene, 2-[1-(dimethylamino)ethyl]-1-(diphenylphosphino)-3-[(4-methylphenyl)thio]-, [S-(R\*,S\*)]- (9CI) (CA INDEX NAME)

PAGE 1-A

HC H C C CH-Me

C CH-Me

C CH-Me

C CH-Me

C CH-Me

PAGE 2-A

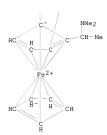
IT 128299-57-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with nickel chloride)

RN 128299-57-0 CAPLUS

CN Ferrocene, 2-[1-(dimethylamino)ethyl]-1-(diphenylphosphino)-3-[(4-methylphenyl)thio]-, [R-(R\*,R\*)]- (9CI) (CA INDEX NAME)



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IT 128299-56-9P

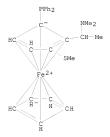
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with rhodium complex)

RN 128299-56-9 CAPLUS

CN Ferrocene, 2-[1-(dimethylamino)ethyl]-1-(diphenylphosphino)-3-(methylthio)-

, [R-(R\*,R\*)]- (9CI) (CA INDEX NAME)



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L11 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1986:443034 CAPLUS
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DOCUMENT NUMBER: 105:43034

ORIGINAL REFERENCE NO.: 105:7133a,7136a

TITLE: Synthesis of derivatives of

 $[\alpha(dimethylamino)ethyl]$ ferrocene via

lithiation reactions and the structure of

 $2-[\alpha-(dimethylamino)ethyl]-1,1',3-$ 

tris(trimethylsilyl)ferrocene Butler, Ian R.; Cullen, William R.; Rettig, Steven J.

CORPORATE SOURCE: Chem. Dep., Univ. British Columbia, Vancouver, BC, V6T

1Y6, Can.

Organometallics (1986), 5(7), 1320-8

CODEN: ORGND7; ISSN: 0276-7333

Journal

LANGUAGE: English

LANGUAGE: English

OTHER SOURCE(S): CASREACT 105:43034
GI For diagram(s), see printed CA Issue.

AB Dilithiation of Fe(C5H4CHMeNNe2)(C5H5) (I) with BuLi is predominantly homoannular but with BuLi/TMED (TMED = tetramethylethylenediamine) is heteroannular. Heteroannular dilithiation predominates in the reaction of BuLi/TMED with Fe(C5H3(CHMeNNe2)SiMe3-1,2)(C5H5), Fe(C5H3)(CHMENNe2)SiMe3-1,2)(C5H5),

 $\label{eq:fecomposition} Fe[CSH2 (CHMeNMe2) (SiMe3) 2-1, 2, 3] (CSH4SiMe3) (II). The lithioferrocenes react with ClSiMe3 to afford isolable products although some mixts. of isomers are difficult to characterize. The [3] ferrocenophane (III) is obtained from I as are [Fe(CSH5) (CSH3 (CHMeNMe2)-1,2]] <math>\times Q$  [x = 2, Q = PPh; x

= 1, Q = SMe; x = 1, Q = PPhCMe3 (only one diastereomer because of strong chiral induction)) and Fe(C5H4CHMeNMe2)(C5H4AsPh2). The crystal structure of II was determined

IT 101932-80-3P 101932-81-4P 101932-82-5P

101932-84-7P 101953-07-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

AUTHOR(S):

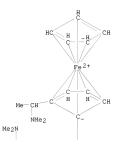
DOCUMENT TYPE:

SOURCE:

(preparation of)

RN 101932-80-3 CAPLUS

PAGE 1-A



Me-CH C P-Ph

H CH

Fe2+

HC H -H CH

C H

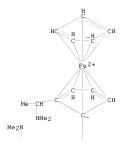
PAGE 2-A

RN 101932-81-4 CAPLUS

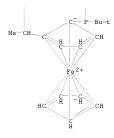
CN Ferrocene, 1,1''-[(1,1-dimethylethyl)phosphinidene]bis[2-[1-

## (dimethylamino)ethyl]- (9CI) (CA INDEX NAME)

## PAGE 1-A

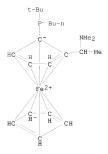


PAGE 2-A



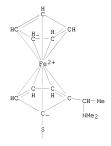
RN 101932-82-5 CAPLUS

N Ferrocene, 1-[butyl(1,1-dimethylethyl)phosphino]-2-[1-(dimethylamino)ethyl]- (CA INDEX NAME)

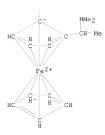


RN 101932-84-7 CAPLUS CN Ferrocene, 1,1"'-thiobis[2-[1-(dimethylamino)ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

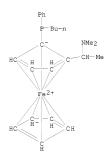


PAGE 2-A



RN 101953-07-5 CAPLUS

CN Ferrocene, 1-(butylphenylphosphino)-2-[1-(dimethylamino)ethyl]- (CA INDEX NAME)



L11 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1985:437577 CAPLUS

DOCUMENT NUMBER: 103:37577
ORIGINAL REFERENCE NO.: 103:6103a,6106a

TITLE: Synthesis of some isopropylphosphinoferrocenes

AUTHOR(S): Butler, Ian R.; Cullen, William R.; Kim, Tae Jeong CORPORATE SOURCE: Chem. Dep., Univ. British Columbia, Vancouver, BC, V6T 1Y6, Can.

SOURCE: Synthesis and Reactivity in Inorganic and

Metal-Organic Chemistry (1985), 15(1), 109-16

CODEN: SRIMCN: ISSN: 0094-5714

DOCUMENT TYPE: Journal

LANGUAGE: English OTHER SOURCE(S):

CASREACT 103:37577

For diagram(s), see printed CA Issue.

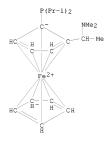
The reactions of lithioferrocenes with chloroisopropylphosphines have been AB carried out to afford a series of new isopropylphosphinoferrocene derivs. including [1]-ferrocenophanes. Thus, the reaction of I (R = Li).Q (II, Q = tetramethylethylenediamine) with ClP(CHMe2)2 gave I [R = P(CHMe2)2] and the reaction of II with Cl2PCHMe2 gave III.

97239-82-2P 97239-83-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and spectra of)

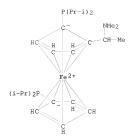
RM 97239-82-2 CAPLUS

Ferrocene, 1-[bis(1-methylethyl)phosphino]-2-[1-(dimethylamino)ethyl]-CN (CA INDEX NAME)



97239-83-3 CAPLUS

CN Ferrocene, 1,1'-bis[bis(1-methylethyl)phosphino]-2-[1-(dimethylamino)ethyl]- (CA INDEX NAME)



L11 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1985:166925 CAPLUS

DOCUMENT NUMBER: 102:166925

ORIGINAL REFERENCE NO.: 102:26253a,26256a

TITLE:

Rhodium(I) complexes of ferrocenylphosphines as efficient asymmetric catalysts. The structure of

Fe (η5-C5H3 (P (CMe3) 2-1, 3) (η5-

C5H3 (CHMeNMe2) P (CMe3) 2-1, 2)

Appleton, Trevor D.; Cullen, William R.; Evans, AUTHOR(S): Stephen V.; Kim, Tae Jeong; Trotter, James

CORPORATE SOURCE: Dep. Chem., Univ. Br. Columbia, Vancouver, BC, V6T 1Y6, Can.

SOURCE: Journal of Organometallic Chemistry (1985), 279(1-2),

5-21

CODEN: JORCAI; ISSN: 0022-328X DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 102:166925 GI For diagram(s), see printed CA Issue.

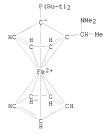
AB The chiral aminomethylferrocenes (R)- or (S)-I (R-R2 = H) were lithiated and treated with C1P(CMe3)2 under varying reaction conditions to give (R,S)-I [R = P(CMe3)2; R1 = H (II), P(CMe3)2 (III); R2= H] and (S,R)-I (same R's) resp. Similarly, (R,R)- or (S,S)-I [R=R2=P(CMe3)2, R1 = H] (IV) were prepared from (R)- or (S)-I (R-R2 = H) resp. [Rh(NBD)L]C104 [V; NBD = norbornadiene, L = (S,R)-II, (S,R-III, (S,S)-IV] catalyzed asym hydrogenation of H2C:CR3CO2H (R3 = Me, CH2CO2H) and PhCH:CR4CO2H (R4 = NHAc, Me); V [L = (S,S)-IV] gave products with up to 95% enantiomeric excesses. The x-ray crystal structure of (S,S)-IV showed the cyclopentadienyl rings are close to planar, deviate slightly from

coplanarity, and are rotated by about 7° from an eclipsed conformation. The substituent P and C atoms are significantly displaced from the ring planes.

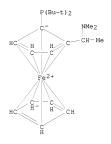
83356-93-8 95839-80-8

RL: RCT (Reactant); RACT (Reactant or reagent) (complexation of, with rhodium complex)

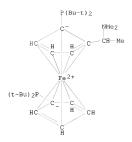
- RN 83356-93-8 CAPLUS
- CN Ferrocene, 1-[bis(1,1-dimethylethyl)phosphino]-2-[(1R)-1-(dimethylamino)ethyl]-, (1R)- (9CI) (CA INDEX NAME)



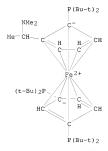
- RN 95839-80-8 CAPLUS
- CN Ferrocene, 1-[bis(1,1-dimethylethyl)phosphino]-2-[1-(dimethylamino)ethyl]-, [S-(R\*,R\*)]- (9CI) (CA INDEX NAME)



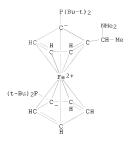
- RN 95762-74-6 CAPLUS
- CN Ferrocene, 1,1'-bis[bis(1,1-dimethylethyl)phosphino]-2-[1-(dimethylamino)ethyl]-, [R-(R\*,R\*)]- (9CI) (CA INDEX NAME)



RN 95839-79-5 CAPLUS
CN Ferrocene, 1,1',3'-tris[bis(1,1-dimethylethyl)phosphino]-2-[1(dimethylamino)ethyl]-, [S-(R\*,5\*)]- (9CI) (CA INDEX NAME)



RN 95840-91-8 CAPLUS
CN Ferrocene, 1,1'-bis[bis(1,1-dimethylethyl)phosphino]-2-[1 (dimethylamino)ethyl]-, [S-(R\*,R\*)]- (9CI) (CA INDEX NAME)



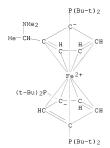
IT 95762-75-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation, crystal structure, and complexation of, with rhodium)

RN 95762-75-7 CAPLUS

CN Ferrocene, 1,1',3'-tris[bis(1,1-dimethylethyl)phosphino]-2-[1-(dimethylamino)ethyl]-, [R-(R\*,S\*)]- (9CI) (CA INDEX NAME)



L11 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1983:160896 CAPLUS DOCUMENT NUMBER: 98:160896 CAPLUS ORIGINAL REFERENCE NO.: 98:24423a, 24426a

TITLE: The synthesis of  $$\alpha$-N, N$-dimethyl-1'-$ 

diphenylphosphinoferrocenylethylamine and related

ligands

AUTHOR(S): Butler, Ian R.; Cullen, William R.

CORPORATE SOURCE: Chem. Dep., Univ. British Columbia, Vancouver, BC, V6T

1Y6, Can.

SOURCE: Canadian Journal of Chemistry (1983), 61(1), 147-53

CODEN: CJCHAG; ISSN: 0008-4042

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Routes to the title compound were explored based on the cleavage of

[1]-ferrocenophanes with aryllithium. Thus, the cleavage of I with PhLi

affords ( $\eta$ 5-C5H4Li)Fe[( $\eta$ 5-C5H3(CHMeNMe2)PPh2] and

 $(\eta 5-C5H4PPh2)$ Fe $[\eta 5-C5H4PPh2)$ Fe $[\eta 5-C5H3Li(CHMenMe2)]$  in the

ratio 15:85. Hydrolysis of this mixture affords the title compound II. The lithio-ferrocenes can be treated with XER2 to yield other mixed ligands (E

= As, P; X = halo). A route to II via  $(\eta_5-C5H4PPh_2)$  Fe $(\eta_5-C5H4COMe)$  was also established but it is complicated by low yields and many side products such as

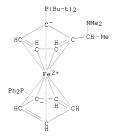
[ (η5-C5H4PPh2) Fe (η5-C5H4) ]2C:CH2.

IT 85150-28-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 85150-28-3 CAPLUS

CN Ferrocene, 1-[bis(1,1-dimethylethyl)phosphino]-2-[1-(dimethylamino)ethyl]l'-(diphenylphosphino)- (CA INDEX NAME)



L11 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1980:471919 CAPLUS DOCUMENT NUMBER: 93:71919

ORIGINAL REFERENCE NO.: 93:11705a,11708a

TITLE: Asymmetric synthesis catalyzed by chiral

ferrocenylphosphine-transition metal complexes. I.

Preparation of chiral ferrocenylphosphines Hayashi, Tamio; Mise, Takaya; Fukushima, Motoo;

Kagotani, Masahiro; Nagashima, Nobuo; Hamada, Yuji;

AUTHOR(S):

Matsumoto, Akira; Kawakami, Sota; Konishi, Mitsuo; et

CORPORATE SOURCE: Fac. Eng., Kyoto Univ., Kyoto, 606, Japan

SOURCE: Bulletin of the Chemical Society of Japan (1980),

53(4), 1138-51

CODEN: BCSJA8; ISSN: 0009-2673

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 93:71919

As chiral ligands for transition metal complex catalyzed asym. reactions, various kinds of chiral ferrocenylphosphines, which have planar chirality due to 1,2-unsym. substituted ferrocene structure and also have a functional group on the side chain of the ferrocene nucleus, were prepared (S)-N, N-Dimethyl-1-[(R)-2-(diphenylphosphino)ferrocenyl]ethylamine, (S)-N, N-dimethyl-1-[(R)-1', 2-bis (diphenylphosphino) ferrocenyl]ethylamine and their dimethylphosphino derivs. were prepared by lithiation of optically resolved N, N-dimethyl-1-ferrocenylethylamine. The 1-(dimethylamino)ethyl group on the ferrocenylphosphines was converted stereospecifically by nucleophilic substitution reactions into 1-methoxy-, 1-hydroxy-, 1-diphenylphosphino-, and several 1-(dialkylamino)ethyl groups. 1-(Diphenylphosphino)-2-(dimethylaminomethyl)ferrocene was optically resolved via its phosphine sulfide dibenzoyltartaric acid salt. The relationship between CD spectra of the chiral ferrocenylphosphines and

the configuration of their chirality is discussed. 74286-08-1P 74286-09-2P 74286-15-0P 74286-16-1P 74286-17-2P 74286-20-7P

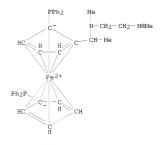
74286-51-4P 74299-69-7P 74299-70-0P RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and properties of)

74286-08-1 CAPLUS

DΝ

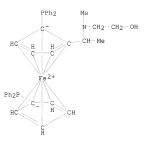
CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-[methyl[2-

(methylamino)ethyllaminolethyll-, stereoisomer (9CI) (CA INDEX NAME)

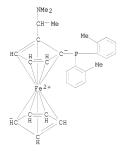


RN 74286-09-2 CAPLUS

CN Ferrocene, 1,1'-bis(diphenylphosphino)-2-[(1R)-1-[(2hydroxyethyl)methylaminojethylj-, (R)- (9CI) (CA INDEX NAME)



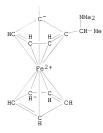
RN 74286-15-0 CAPLUS
CN Ferrocene, 1-[bis(2-methylphenyl)phosphino]-2-[1-(dimethylamino)ethyl]-,
[5-(R\*,R\*)]- (9C1) (CA INDEX NAME)



RN 74286-16-1 CAPLUS
CN Ferrocene, 1-[bis(3-methylphenyl)phosphino]-2-[1-(dimethylamino)ethyl]-, stereoisomer (9C1) (CA INDEX NAME)

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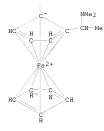


RN CN

74286-17-2 CAPLUS
Ferrocene, 1-[bis(3,5-dimethylphenyl)phosphino]-2-[(1S)-1-(dimethylamino)ethyl]-, (1S)- (CA INDEX NAME)

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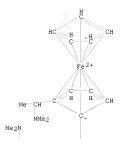
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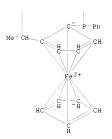


RN CN

74286-20-7 CAPLUS Ferrocene, 1,1"-(phenylphosphinidene)bis[2-[1-(dimethylamino)ethyl]-, stereciosmer (9C1) (CA INDEX NAME)

PAGE 1-A

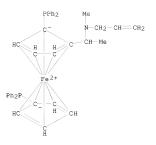




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RN

74286-51-4 CAPLUS Ferrocene, 1,1'-bis(diphenylphosphino)-2-[1-(methyl-2-propenylamino)ethyl]-, stereoisomer (9C1) (CA INDEX NAME) CN



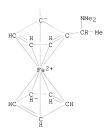
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74299-69-7 CAPLUS Ferrocene, 1-[bis(3-methoxyphenyl)phosphino]-2-[1-(dimethylamino)ethyl]-, stereoisomer (9C1) (CA INDEX NAME) CN

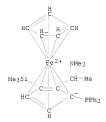
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PAGE 2-A



RN 74299-70-0 CAPLUS
CN Ferrocene, 2-[(1R)-1-(dimethylamino)ethyl]-1-(diphenylphosphino)-3(trimethylsilyl)-, (1S)- (9CI) (CA INDEX NAME)



=> log h COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	83.70	362.12
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL
CA SUBSCRIBER PRICE	-11.48	-11.48

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STN INTERNATIONAL SESSION SUSPENDED AT 09:56:47 ON 24 MAY 2009